

Notice of Allowability

Application No.

10/730,141

Examiner

Krista M. Flanagan

Applicant(s)

SUZUKI ET AL.

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed August 2, 2006.
2. ☒ The allowed claim(s) is/are 1-15, 18-32, and 35-39.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Regarding claim 1, seventh paragraph, fifth line, "for outputting said combined output" should be changed to -for outputting a combined output-

Regarding claim 3, first paragraph, line 1 and second paragraph, line 1, respectively, "a digital predistorter" should be changed to -a first digital predistorter- and "from said digital [predistorter]" should be changed to -from said first digital [predistorter]-

Regarding claim 3, eighth paragraph, lines 1, "a second DA converter for converting said predistorted pilot signal to an analog signal" should be changed to - a second DA converter for converting said predistorted pilot signal to an analog predistorted pilot signal-

Regarding claim 3, tenth paragraph, lines 2 "and said analog predistorted transmission signal" should be changed to - and said analog predistorted signal-

Regarding claim 4, second paragraph, line 1, "from said digital [predistorter]" should be changed to -from said first digital [predistorter]-

Regarding claim 12, seventh paragraph, line 1; claim 13, seventh paragraph, line 1, and claim 22, line 2 "a pilot signal generator for generating said digital pilot signal" should be changed to - a pilot signal generator for generating a digital pilot signal-

REASONS FOR ALLOWANCE

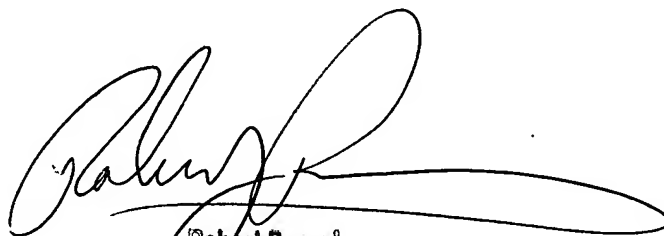
2. The following is an examiner's statement of reasons for allowance:
 - a. Regarding claim 1, prior art fails to disclose a linear power amplifier or method of linearizing a power amplifier where a predistorter control part with distortion generating paths which generates distortions based on a power series model and FIR filters whose frequency characteristics are controlled by extracted odd order components.
 - b. Regarding claims 3, 4 and 14, prior art fails to disclose a linear power amplifier, which uses a pilot signal generator and a second digital predistorter to generate a predistorted pilot signal where the predistorted pilot signal is combined with the predistorted signal to extract distortion components.
 - c. Regarding claims 12, 13, 32, 35 and 36, prior art fails to disclose a linear power amplifier and amplification method where a digital signal and digital pilot signal are used to generate a predistortion signal, where the odd order distortion components extracted are the component of the digital pilot signal.
3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista M. Flanagan whose telephone number is (571) 272-2203. The examiner can normally be reached on Monday - Friday, 8 - 4:30.

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5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K. Flanagan
20060918



Robert Pascal
Supervisory Patent Examiner
Technology Center 2800